

Setting up the server

```
Command Prompt

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker run --rm -d --name apache -p 80:80 httpd:2.4
eceabaec4359577456b019231e2111f67a2076ceaa7050bd4241c38f855ed543

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                               NAMES
eceabaec4359   httpd:2.4      "httpd-foreground"      35 seconds ago Up 32 seconds  0.0.0.0:80->80/tcp, :::80->80/tcp  apache
2c18023de134   b8f19ea33a0b   "sh -c 'ping $PING_T..." 23 minutes ago Exited (0) 23 minutes ago          bold_leavitt
3f11e86a59da   ubuntu:16.04   "/bin/bash"             2 hours ago   Exited (0) 2 hours ago          naughty_lewin

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>curl localhost
<html><body><h1>It works!</h1></body></html>

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker cp index.html apache:/usr/local/apache2/htdocs/

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>curl localhost
<html><body><h1>It works in Docker!</h1></body></html>

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>
```

No preservation

```
Command Prompt

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker stop apache
apache

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker run --rm -d --name apache -p 80:80 httpd:2.4
7807acf748d93181f3f96a09ef3dcef1621ee3054c1bc299ce8d004f0f906453

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>curl localhost
<html><body><h1>It works!</h1></body></html>

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>
```

Managing volumes

```
Command Prompt

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker volume ls
DRIVER    VOLUME NAME

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker volume create myvolume
myvolume

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker volume ls
DRIVER    VOLUME NAME
local     myvolume

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker volume rm myvolume
myvolume

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker volume ls
DRIVER    VOLUME NAME

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>
```

Preserving data using volumes (forgot to stop the previous one)

```
Command Prompt

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker volume create httpd_htdocs
httpd_htdocs

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker volume ls
DRIVER      VOLUME NAME
local       httpd_htdocs

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker run --rm -d --name apache -p 80:80 -v httpd_htdocs:/usr/local
/apache2/htdocs/ httpd:2.4
docker: Error response from daemon: Conflict. The container name "/apache" is already in use by container "7807acf748d93181f3f96a09ef3dcef1621ee3054c1bc299ce8d004f0f90645
3". You have to remove (or rename) that container to be able to reuse that name.
See 'docker run --help'.

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                               NAMES
7807acf748d9   httpd:2.4      "httpd-foreground"      4 minutes ago Up 4 minutes   0.0.0.0:80->80/tcp, :::80->80/tcp   apache
2c18023de134   b8f19ea33a0b   "sh -c 'ping $PING_I..." 30 minutes ago Exited (0) 30 minutes ago         bold_leavitt
3f11e86a59da   ubuntu:16.04   "/bin/bash"             2 hours ago   Exited (0) 2 hours ago                                naughty_lewin

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker stop 780
780

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker rm 780
Error: No such container: 780

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                               NAMES
2c18023de134   b8f19ea33a0b   "sh -c 'ping $PING_I..." 31 minutes ago Exited (0) 31 minutes ago         bold_leavitt
3f11e86a59da   ubuntu:16.04   "/bin/bash"             2 hours ago   Exited (0) 2 hours ago                                naughty_lewin

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker run --rm -d --name apache -p 80:80 -v httpd_htdocs:/usr/local
/apache2/htdocs/ httpd:2.4
a39ca75b8cfcebcf61dcd8baea95a592c0026ae62e9ee31131d3a4e117c3f2c8

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker cp index.html apache:/usr/local/apache2/htdocs/

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>curl localhost
<html><body><h1>It works in Docker!</h1></body></html>

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker stop apache
apache

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker run --rm -d --name apache -p 80:80 -v httpd_htdocs:/usr/local
/apache2/htdocs/ httpd:2.4
b9d9921a731a285d84aab123401596b0e6391c4c72d7fecb97c40359a57caea8

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>curl localhost
<html><body><h1>It works in Docker!</h1></body></html>

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>
```

Mounting host directories on containers

Copied index.html to a different folder which is simpler in “path” and set current working directory there since I encountered some error shown in the second image. Tried using a workaround first shown in third image however the “output” is not as expected.

```
C:\Users\Kennedy\Desktop\Act5>docker run --rm -d --name apache -p 80:80 -v C:\Users\Kennedy\Desktop\Act5:/usr/local/apache2/htdocs/ httpd:2.4
4d3cfcee98b0b68541110deb129654489df3136cf96d6c0e813ca197390738f1

C:\Users\Kennedy\Desktop\Act5>curl localhost
<html><body><h1>It works in Docker!</h1></body></html>

C:\Users\Kennedy\Desktop\Act5>
```

```
C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker run --rm -d --name apache -p 80:80 -v C:\Users\Kennedy\Deskt
op\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes:/usr/local/apache2/htdocs/ httpd:2.4
docker: invalid reference format: repository name must be lowercase.
See 'docker run --help'.
```

```
C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>docker run --rm -d --name apache -p 80:80 -v cd:/usr/local/apache2/h
tdocs/ httpd:2.4
ac63546b52a78a34e5d0f253e78a03e6a04c38a41f4cb3b6c0bf54b63bea0efe

C:\Users\Kennedy\Desktop\UP Files - III - 2nd Sem\197\ME8_Containerization_and_Docker-main\5-volumes>curl localhost
<html><body><h1>It works!</h1></body></html>
```